SCR Species Outlines

This section contains information about some of the sensitive fish, amphibians and reptiles that inhabit SCR. Included are biological, habitat and seasonal information for each species that may provide guidelines for management and mitigation issues. Breeding and spawning seasons are highlighted in bold type to indicate critical periods when disturbance and habitat impacts should be avoided. Future reports will include sensitive bird and mammal information as well. The information was compiled using the current available literature.

Southern Steelhead
(*Oncorhynchus mykiss irdeus*)

Status: **Federal -** Endangered **State (CDFG)** – Species of Special Concern

Description:
The Southern Steelhead is a large member of the Salmonidae family that can attain sizes of up to 9 kg. This species of sea-run rainbow trout has forked caudal fins, large mouths, and well developed teeth. Individuals have small scales and lack basibranchial teeth.

Distribution and Habitat:
Southern Steelheads are probably more tolerable to variable environmental conditions and warmer water temperatures than the Northern Steelhead. Preferred spawning habitat is that of high elevation headwaters located close to the ocean. Streams consisting of cool, well-oxygenated water are necessary spawning habitat requirements. Streams may also be steep and rocky and surrounded by riparian vegetation.

Life History:
Southern Steelhead trout are winter run fish that spawn from December to May. Females lay between 500 and 3,100 eggs, which hatch in approximately 30 days. The young emerge from gravel nests four to six weeks later, and move into shallow stream margins. As juveniles increase in size they move into riffles then runs and pools. The first 1-3 years are spent in fresh water, which is followed by a migration to the ocean. Southern Steelhead trout return to fresh water to spawn generally when they are 4 years of age.

Santa Ana Speckled Dace
(*Rhinichthys osculus*)

Status: **State (CDFG) -** Species of Special Concern

Description:
The Santa Ana Speckled Dace is a small fish of the family Cyprinidae ranging in size up to 80 mm SL.

Distribution and Habitat:
The Santa Ana Speckled Dace has lost much of its historical range, and is now limited to the headwaters of the Santa Ana and San Gabriel rivers. This species inhabits shallow cobble and gravel riffles of permanent streams. Streams have summer water temperatures ranging between 17 and 20 degrees Celsius. Overhanging vegetation and the low numbers of introduced species are essential for the Santa Ana Speckled Dace.

Life History:
Little is known about the life cycle of the Santa Ana Speckled Dace, although it is believed that individuals probably live up to three years.

Unarmored Threespine Stickleback
(Gasterosteus aculeatus williamsoni)

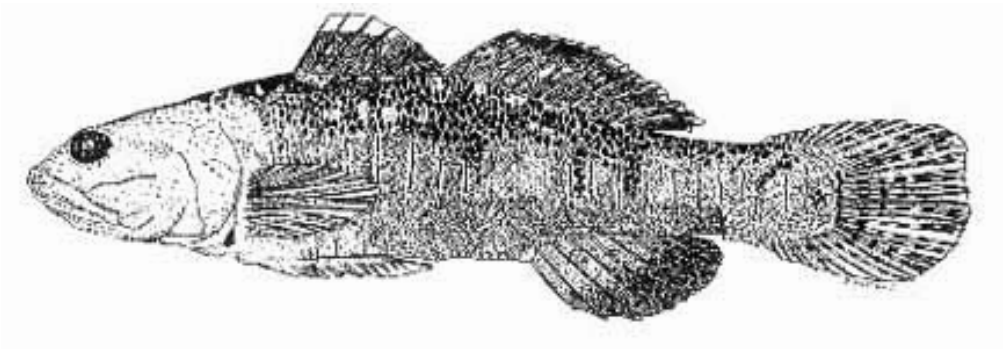
Status: **Federal** – Endangered **State (CDFG)** – Fully Protected

Description:
The Unarmored Threespine Stickleback is small (less than 2.4 inches) fish of the Gasterosteidae family. The body is compressed and is spindle shaped. Three upright sharp spines are located anterior to the dorsal fin. The dorsal side is greenish or olive colored. The ventral side is a silvery color. This species is scaleless and has a small mouth.

Distribution and Habitat:
Unarmored Threespine Sticklebacks are currently found in Los Angeles, Ventura, San Louis Obispo, and San Diego counties. They inhabit the Santa Clara River drainage, San Antonio Creek, and the San Felipe Creek. Slow-moving streams surrounded by dense vegetation provide an adequate environment for this species. Algal mats, rocks, or debris may provide shelter in open areas. Unarmored Threespine Sticklebacks prefer clear watered streams with mud or sand substrates.

Life History:
Breeding occurs throughout the year. Males secrete a substance from their kidneys that seals grass and sticks together to form a nest. Nests are usually located in shallow water on stream bottoms. Several females may deposit their eggs in each nest. Hatching occurs in approximately 6 days. The male will aggressively defend the area until the young leave the nest. The life cycle of the Unarmored Threespine Stickleback is believed to be only 1 year long. Individuals feed on insects, snails, small crustaceans, flat worms, and nematodes.

Tidewater Goby
(*Eucylogobius newberryi*)



Status: **Federal –** Endangered **State (CDFG)** – Species of Special Concern

Description:
The Tidewater Goby is a small (less than 50 mm SL) fish of the family Gobiidae. The body is to some extent dorso-ventrally flattened, and is elongate in shape. The back, sides, and dorsal fin are dark olive colored. The coloration of the first dorsal fin is cream to orange, and partially transparent. Tidewater Gobies have small scales throughout the majority of their body however, they are lacking on the head, belly, chest, and sometimes the nape. The pelvic fins are fused, and form a ventral sucker disk. Individuals have large pectoral fins, and yellowish pelvic fins. A lateral line is absent in this species.

Habitat and Distribution:
The Tidewater Goby occurs irregularly throughout California. This species intermittently ranges from the mouth of the Smith River (Del Norte County) southward to Aqua Hedionda Lagoon (San Diego County). Tidewater Goby habitat within San Diego County include: San Mateo Creek, San Onofre Creek, Las Flores Creek, Hidden Creek, Aliso Creek, French Creek, Cockleburr Creek, Santa Margarita River, and Aqua Hedionda Lagoon. Tidewater Gobies inhabit coastal streams and lagoons with slow-moving or relatively still water. Shallow waters with sandy substrates are necessary for reproduction. The aquatic environment must have salinity level less than 10 parts per thousand.

Life History:
Tidewater Gobies are benthic animals that inhabit slow-moving streams and lagoons. The entire life cycle of this species occurs in fresh or brackish water. Breeding is thought to take place throughout the year however; peak spawning periods in southern California populations are known to occur between **April and June**. Males dig burrows 10-20 cm into sandy substrates of shallow waters. Females are capable of producing 640-800 eggs. The eggs are deposited and attached to the burrow walls. The male is responsible for guarding the nest. Approximately 9-10 days pass before larvae emerge from the nest. Larvae spend time amongst aquatic vegetation until they are approximately 15-18 SL. Tidewater Gobies engage in benthic foraging behaviors, feeding mostly on aquatic insects, small crustaceans, and molluscs.

Arroyo Chub
(*Gila Orcutti*)

Status: **State (CDFG)** – Species of Special Concern

Description:
The Arroyo Chub (family Cyprinidae) is a small fish that generally ranges in size from 70-100 mm. Individuals have stocky bodies, small mouths, and large eyes. Dorsal coloration is silvery, gray, or olive. The ventral side is white, and a dull gray lateral band is usually present.

Distribution and Habitat:
The Arroyo Chub has lost much of its native range and is currently abundant only in the upper Santa Margarita River, Del Luz Creek, Trabuco Creek, Malibu Creek, and West Fork San Gabriel River. Arroyo Chubs prefer slow-moving or backwater areas of streams. Additional stream requirements are those of sand or mud substrates, with water temperatures ranging between 10-24 degrees Celsius.

Life History:
The Arroyo Chub Breeding season is generally from **February to August**. The average spawning water temperature is 14-22 degrees Celsius. Adults spawn in pools or along stream edges. Males use their snouts to rub the region below the female's pelvic fins, which induces eggs to be released. The eggs are then fertilized and become attached to the bottom of the pool. Hatching usually occurs within 4 days. The young Arroyo Chubs spend the first 3-4 months amongst vegetation in quiet water. Females reproduce after their first year. Individuals feed mostly on algae; however, will also consume insects, small crustaceans. Arroyo Chubs will usually live for up to four years.

Santa Ana Sucker
(*Catostomus santaanae*)

Status: **Federal –** Threatened **State (CDFG)** – Species of Special Concern

Description:
The Santa Ana Sucker is a small (less than 200 mm SL) member of the Catostoidae family. The ventral side of the body is silvery, and the dorsal surface is darker with irregular blotches. Notches are located at the connections of upper and lower lips. The dorsal fin is short with 10 fin rays. This species has a deep caudal peduncle, and a black peritoneum. Pigmented membranes connect the rays of the caudal fin.

Distribution and Habitat:
Santa Ana Suckers are found in Los Angeles, Riverside, Orange, and San Bernardino counties. They inhabit drainages in the Los Angeles, Santa Ana, and San Gabriel river systems. A population occurs in the Santa Clara River but is thought to be introduced. This species is found in streams in which periodic flooding occurs. Small to medium sized streams with slight to swift moving water provide adequate habitat. They are generally found in permanent streams with rough substrates and clear water. Overhanging vegetation and deep holes provide cover for Santa Ana Suckers. The presence of algae is a critical habitat requirement.

Life History:
Spawning generally occurs between **March and July**. Females produce between 4,000 and 16,000 eggs. Hatching occurs within 360 hours at 13 degrees Celsius. The life cycle of Santa Ana Suckers is relatively short. The majority of individuals do not live beyond 2 years of age. Reproductive maturity is attained within the first year. Algae, detritus, and diatoms are the main constituents of their diet; however, they also feed on aquatic insects, fish eggs, and insect larvae.

California Newt
(*Taricha torosa*)

Status: **State (CDFG)** – Species of Special Concern

Description:
The California Newt (family Salamandridae) is a relatively large salamander ranging from 2.75-3.5 inches. (6.9-8.7 cm) The skin is grandular and varies in color. Individuals have a dark brown to black dorsal side, and a yellow to orange underside. The eyes protrude from the head. A neurotoxin called tetrodotoxin is present in California Newt eggs, as well as in the skin of adults and larvae.

Distribution and Habitat:
The California Newt occurs in coastal drainages from central Mendocino County southward to northern San Diego County at elevations from sea level up to 1830m. Breeding occurs in slow moving streams, ponds and reservoirs. Terrestrial habitats frequented by *T. torosa* include valley-foothill hardwood and hardwood-conifer habitats, as well as coastal scrub, grassland, and mixed chaparral.

Life History:
The California Newt spends most of the time in subterranean refuge sites. Adults emerge after substantial rainfall and migrate to breeding sites, where they often remain for several weeks. The breeding season varies, but is typically from **December to April**. Breeding adults are active during the daytime and at night. Eggs are fertilized internally shortly after the female collects spermatophores. Females deposit clusters of eggs in shallow water, which become attached to aquatic vegetation and rocks. Hatching occurs in approximately 4-6 weeks. Larvae seek cover underneath submerged rocks and debris. Larvae feed on aquatic invertebrates, and require 3-6 months of development before they reach metamorphosis. Juveniles and adults consume aquatic and terrestrial invertebrates, and the eggs of other amphibians. Adults leave breeding sites to migrate back to refuge sites where they remain during aestivation. Small mammal burrows, rocks, and logs provide terrestrial cover.

California Tiger Salamander (*Ambystoma californiense*)

Status: **Federal –** Endangered **State (CDFG)** - Protected

Description:
The California Tiger Salamander (family Ambysomatidae) is a large salamander ranging from 75-125mm SVL. The dorsal coloration of this terrestrial species is black, with several yellow or white spots. The ventral side of Tiger Salamanders varies. A number of individuals have a solid yellow or white coloration throughout, while others are multicolored. This group of stocky salamanders is distinguished by having wide rounded snouts and small protruding eyes.

Distribution and Habitat:
This species ranges from the vicinity of Petaluma, Sonoma County and Dunnigan, Colusa-Yolo County line (Storer 1925) with an isolated outpost north of the Sutter Buttes at Gray Lodge, Butte County (Hayes and Cliff 1982) in Central Valley, south to vernal pools in northwest Tulare County, and in the Coast Range south to ponds and vernal pools between Buellton and Lompoc in the Santa Ynez drainage, Santa Barbara County. California Tiger Salamanders inhabit long-lasting rain pools surrounded by grassland vegetation. They are restricted to elevations below 1,400 ft. Small mammal burrows located near breeding sites are a necessary habitat requirement during the dry-season.

Life History:
California Tiger Salamanders spend the majority of their lives in subterranean refuge sites. Adults emerge at night following periods of substantial rainfall. The breeding season varies, but is generally from **November to February.** Males arrive at breeding pools prior to females, and remain at the site for a longer duration of time. Females deposit 400-1,300 eggs individually or in small groups. The eggs are submerged in shallow water and are normally attached to vegetation or rocks. Hatching occurs 10 to 14 days after oviposition. Larvae initially consume algae, mosquito larvae, and small crustaceans, but as they grow larger will feed on smaller tadpoles and aquatic invertebrates. Metamorphosis is completed after approximately 8-10 weeks of development. Juveniles exit receding pools to seek refuge in small mammal burrows where they remain during the dry season. California Tiger Salamanders have a lengthy juvenile stage, and may require 4-5 years of development before they breed. Adults may only breed once or twice in ten years.

Arroyo Toad (*Bufo californicus*)

Status: **Federal –** Endangered **State (CDFG)** – Protected

Description:

The Arroyo Toad, (family Bufonidae) is an average sized toad ranging from 55-80 mm SUL. The dorsal side of *B. Californicus* is light olive green to tan, and usually has a lighter colored region toward the middle of the back. The ventral side is entirely white, lacking spots or markings. Arroyo Toads have a characteristic "V" shaped stripe that intersects the head and eyelids. A middorsal stripe is usually absent in this species.

Distribution and Habitat:

The Arroyo Toad traditionally has had a range extending from the upper Salinas river system (Monterey County) to the San Diego river system, through the Los Angeles Basin and Orange and Riverside coastal drainages. Habitat requirements for this species are extremely specialized. Adults use overflow pools beside streams of third order or greater for breeding. Adequate stream breeding habitats are those of slow-moving, shallow water with sandy or gravelly bottoms. Breeding pools must be located near a shoreline and sandy terraces. Damp areas that consist of less than ten percent vegetation cover are critical for the survival of juveniles. An area with an abundance of fine sand is a requirement for Arroyo Toad burrowing.

Life History:

Arroyo Toad behavior is influenced strongly by rainfall and temperature. The breeding season varies from year to year, but is generally from **January to July**. Adults emerge from overwintering sites after substantial rainfall, on nights with temperatures exceeding 45 degrees Fahrenheit. Males arrive first at breeding sites, and begin calling along the edges of shallow pools. Amplexus usually occurs at the calling site. Females lay 2,000-10,000 dark colored eggs into shallow waters, which hatch 4-6 days later. Larvae are affected by water temperature, and it may take up to 14 days of development until they are able to swim freely. Larvae consume organic material by filtering the substrate. Metamorphosis occurs after 65-85 days of development. Juveniles will remain in their streamside habitat for up to 9 weeks. During this time they forage at night for ants and beetles. Once juveniles have reached about 30mm in size, they will construct burrows 10-18cm deep in willow areas where they will remain until the following breeding season. Arroyo toads reach reproductive maturity in approximately 2 years.

Western Spadefoot Toad
(*Spea [Scaphiopus] hammondii*)

Status:
Federal – Species of Special Concern **State (CDFG)** – Species of Special Concern

Description:
The Western Spadefoot (family Pelobatidae) is an average sized toad ranging from 37.0-62.0 mm SUL. The dorsal side is green, gray, or brown, with orange or reddish tipped tubercles located on the surface of the skin. Four irregular, light-colored stripes are present on the back, which sometimes appear hourglass shaped. Western Spadefoot toads have a black colored spade on each of the hind feet, and distinctive eyes with pale gold irises and vertically elliptical shaped pupils. The ventral side of the body is entirely white.

Distribution and Habitat:
The Western Spadefoot historically ranged from Redding, Shasta County, southward to northwestern Baja California, Mexico at elevations up to 1363m. Western Spadefoots prefer lowland grassland habitat, and require temporary rainpools for breeding. Temporary rainpools must last three weeks or longer, with water temperatures ranging between 9 and 30 degrees Celsius. This species retreats to subterranean burrowing sites during the dry-season, although little is known about the soil characteristics.

Life History:
The breeding season for Western Spadefoot Toads is from **January to May**. Adults emerge from burrowing sites following warm rains to congregate at breeding pools. Females deposit cylindrical clusters of 10-42 eggs onto vegetation, rocks and detritus in temporary rainpools. Water temperature affects the duration of embryonic and development, and hatching occurs in 0.6-6 days. Larvae feed mostly on algae and planktonic organisms. Larval development is also affected water temperature and is completed in 3-11 weeks. Adults are highly nocturnal and feed on crickets, flies, earthworms and other invertebrates. Western Spadefoots seek refuge in underground burrows during the dry season. Most individuals construct their own burrows however, some use small mammal burrows. Larval and metamorph Spadefoot toads may cue to their specific breeding pools and may return to that same pool to breed in the future.

California Red-Legged Frog
(*Rana aurora draytonii)*

Status: **Federal –** Threatened **State (CDFG)** - Protected

Description:
The California Red-Legged Frog is a large frog of the family Ranidae ranging from 85-138 mm SUL. Individuals are reddish brown with lateral folds and black spots (usually with lighter centers) visible on the dorsal side. The ventral side is often red or red orange, however this coloration varies amongst individuals.

Distribution and Habitat:
California Red-Legged Frogs historically ranged from Shasta County, California, south to the Mexican border at elevations up to 1,500 meters. Populations are found in areas of deep, (0.7 m or greater) slow moving water surrounded by riparian vegetation. Breeding sites are variable, and include streams, ponds, marshes, lagoons, and deep pools. Aquatic habitats must have a salinity level less than 4.5 parts per thousand to prevent egg mortality. Individuals will leave breeding sites when water is unavailable and seek protection in small mammal burrows, and underneath downed trees, rocks, and debris.

Life History:
The Breeding season for California Red-Legged Frogs is generally from **November through April**. Males arrive at breeding sites 2-4 weeks prior to females, and call in groups of up to seven. Females attach 2,000-6,000 eggs to emergent vegetation following amplexus. Water temperature affects the duration of embryonic development, which typically lasts between 6 and 14 days. Larvae, which are thought to be algal grazers, spend most of their time hidden amongst emergent vegetation. Metamorphosis occurs after 4-5 months of development. Individuals become reproductively mature after approximately 3-4 years, and have an average life span of 8-10 years. Adults exhibit nocturnal behavior, foraging mostly on invertebrates. However, vertebrates such as small mammals and other frogs make up a large percentage of their diet. California Red-Legged Frogs will leave the breeding site during the dry season, migrating to upland habitat in search of refuge sites.

Western Pond Turtle
(*Clemmys marmorata*)

Status: **Federal –** Species of Special Concern **State (CDFG)** - Protected

Description:
The Western Pond Turtle is medium sized ranging between 120-210 mm CL. Individuals have a low carapace that is typically olive or dark brown. Light and dark markings may radiate from the center of the scutes. The skin coloration is olive, yellow, orange, or brown and is often irregularly spotted. The plastron may be entirely light or dark, or have varied markings. A brown stripe stretches across the iris of the eye.

Distribution and Habitat:
The Western Pond Turtle historically was present in most Pacific slope drainages from Klickitat County, Washington southward to northern Baja California, Mexico. This highly aquatic species is found in ponds, streams, reservoirs and other slow-moving water environments. Vegetation, logs, rocks, and sand banks serve as basking sites and may be considered a habitat requirement. Shallow water and an abundance of aquatic vegetation are vital for hatchling survival. Terrestrial nesting sites are typically dug on unshaded slopes in substrates containing clay or silt. Nesting sites are somewhat southward facing, and are usually located within 200 m of the aquatic environment.

Life History:
Western Pond Turtles leave the aquatic environment to reproduce, aestivate, and overwinter. Individuals may be active year round in areas where surface water temperatures are consistently 15 degrees Celsius or higher. Basking, a behavior that regulates body temperature, occurs in and out of the water. Western Pond Turtles leave aquatic sites to bask when water temperatures are too low, and bask at the water's surface when air temperatures are too high. Mating usually occurs between **April and May**. Oviposition usually occurs between Man and June. Females deposit 1-13 eggs into shallow nests near aquatic sites. Hatchlings spend time feeding on nekton in shallow waters with dense vegetation. Individuals generally require 7-11 years to reach reproductive maturity. Adults diets are mainly composed of aquatic invertebrates however, carrion and aquatic vegetation are also consumed.

Coast Horned Lizard
(*Phrynosoma coronatum*)

Status: **Federal –** Species of Special Concern **State** (CDFG) - Protected

Description:
The Coast Horned Lizard is a relatively large lizard averaging 65-110 mm SVL. Individuals have a short tail, and a body that is dorsoventrally compressed. Large scales project backwards on the posterior end of the head. Fringe scales are present on the tail, and in two parallel rows on the lateral body. Dorsal coloration varies, but is generally yellow, gray, tan, white or reddish-brown. Dark spots, which usually are similar to the soil color, are located on the neck and back. Ventral coloration is white or yellowish, with dark spots.

Distribution and Habitat:
Coast Horned Lizards occur in southern California and northern Baja California, Mexico. Californian populations are found in Kern, Los Angeles, Santa Barbara, San Bernardino, Ventura, Riverside, Orange, and San Diego Counties. This species has a range from the Transverse Ranges southward to the Peninsular Ranges. Coast Horned Lizards can occur in a variety of different environments including valley-foothill, hardwood, conifer and riparian, as well as in pine-cypress junipers and annual grassland habitat. Individuals require areas with loose, fine soils, open areas for basking, and an abundance of native ants or other insects.

Life History:
The Coast Horned Lizard is a solitary animal that generally emerges from hibernation in March. The reproductive season varies from year to year, and geographically depending on local conditions. Southern California populations were reported to begin laying eggs from late **May through June,** with a mean clutch size of 13 eggs. Eggs are laid in nests constructed by the females in loose soil. Hatching occurs after approximately 2 months. Coast Horned Lizards forage on the ground, primarily feeding on native ants. Additional dietary components include wasps, grasshoppers, flies, caterpillars, and beetles. Daily activities are strongly affected by temperature. Basking is a behavior that is performed for thermoregulation.

Blunt-Nosed Leopard Lizard (*Gambelia Sila*)

Status: **Federal –** Threatened **State** (CDFG) – Fully Protected

Description:
The Blunt-Nosed Leopard Lizard (family Iguanidae) is a relatively large lizard ranging in size from 3 to 5 inches snout to vent. Individuals have a short, blunt snout and a long, rounded tail. The sides and back of Gambelia sila are black or dark brown, with a varied pattern of dark spots and yellowish colored cross bands. The ventral side of the body is white. Females develop red-orange markings on their sides during the breeding season. Males develop a salmon coloration during mating, which is visible on their sides and bellies.

Distribution and Habitat:
Blunt Nosed-Leopard Lizards inhabit the San Joaquin Valley and surrounding foothills. They are found in sparsely vegetated areas at elevations between 30 and 790 meters. Grasslands, alkali flats, washes, canyon floors, and arroyos are preferred habitat types. The Blunt Nosed Leopard Lizard uses small mammal burrows for shelter during extreme temperatures. Burrows are also used to provide protection from predators and to hibernate. Shallow tunnels are constructed and used temporarily when mammal burrows are not available.

Life History:
The breeding season is generally from **April to June**. Females construct chambers inside mammal burrows where she will lay 2-6 eggs in June of July. The incubation period lasts about 2 months, and hatching usually occurs from July to August. Blunt-Nosed Leopard Lizards hibernate during the winter, and become active when the weather gets warmer. Temperatures between 74 and 104 degrees Fahrenheit are ideal for activity above ground. Their diet is composed mostly of insects, but will sometimes feed on vegetation and smaller lizards. Grasshoppers, crickets, and moths are their primary food source.

Two-Striped Garter Snake
(*Thamnophis hammondii*)

Status: **State** (CDFG) – Species of Special Concern

Description:
The Two-Striped Garter (family Colubridae) is a medium sized snake ranging between 60-101 cm TL. Dorsal coloration varies, but is typically olive, brown, or brownish gray. Lateral stripes are yellow-orange in color and are located singly on each side of the body. Individuals have a light tan colored iris.

Distribution and Habitat:
The Two-Striped Garter has a range extending from the Salinas Valley, through the Coast and Peninsular ranges southward to La Presna, Baja California, Mexico. Populations occur in an elevational range of sea level to 2,400 m. This species is highly aquatic, and generally found in terrestrial habitats associated with perennial or intermittent streams. A Rocky bedded stream surrounded by riparian vegetation is the ideal habitat for *T. hammondii*. Mammal burrows, crevices, and logs are generally frequented by individuals at night. Stream banks and rocks are commonly used as basking sites.

Life History:
Two-Striped Garter snakes are found in close proximity to water. Individuals hibernate during the winter, and emerge during the spring. Mating occurs in the **spring**. Between 1-25 young are born in the fall. Juveniles and adults feed mainly on fish, amphibians, fish eggs, and tadpoles. Individuals will also consume small mammals and invertebrates. The duration of developmental time required to reach sexual maturity is approximately 2-3 years.

San Diego Mountain Kingsnake
(*Lampropeltis zonata pulchra*)

Status: **Federal –** Species of Special Concern **State** (CDFG) - Protected

Description:
The San Diego Mountain Kingsnake is a medium sized (53-108 cm TL) snake of the family Colubridae. Red, black, and white rings are present throughout the entirety of the body. Individuals have a black snout and a dark brown iris.

Distribution and Habitat:
The San Diego Mountain Kingsnake is found in the Santa Monica, Santa Ana, Santa Rosa, and Palomar mountains, as well as Hot springs, Cuyamaca, Laguna, and Corte Madera. Occurs most frequently in canyon bottoms of woodland habitat. The San Diego Mountain Kingsnake also inhabits riparian environments. Rocks and rock outcroppings provide refuge sites, and are probably a habitat requirement. Rocks also provide shelter for a variety of different animals, and are responsible for increasing the necessary food resources.

Life History:
The San Diego Mountain Kingsnake exhibits secretive behavior, and is rarely observed. Individuals will spend most of their time underneath objects shortly after emerging from overwintering sites in March, and become active mostly during the daytime. Mating probably occurs in **May**. Females lay 4-9 eggs in June-July. Two months of development is required before the eggs hatch. Captive individuals reach sexual maturity in 4-5 years. San Diego Mountain Kingsnakes are known to feed on Western Fence Lizards and Western Skinks; however, it is possible that there are additional components to their diet.

Rosy Boa
(*Lichanura trivirgata*)

Status: **Federal –** Species of Special Concern

Description:
The Rosy Boa is a secretive snake of the Boidae family. Adults range in size from 22-40 inches. Individuals have a stout body with a blunt finger-like tail. They are yellowish tan to gray in color, and are marked by three reddish brown or rose colored longitudinal stripes. The head is small and has gray, beige, or orange colored eyes with vertically oriented pupils.

Habitat and Distribution:
The Rosy Boa ranges in California from the coast to the Colorado and Mojave deserts. They occur south of Los Angeles in desert and chaparral habitats associated with rocky shrubland, desert slopes, and canyons. Intermittent or permanent water sources are generally located in Rosy Boa habitat. Rosy Boas flourish in areas with moderate to dense vegetation or rock cover.

Life History:
The breeding season of the Rosy Boa is between **spring and early summer**. 6-10 young are born live, and have a relatively long life expectancy. Captive Rosy Boas have been reported living past 25 years. This species feeds primarily on small mammals and birds. Lizards may also be a component of the Rosy Boas diet.

Red Diamond Rattlesnake
(*Crotalus ruber)*

Status:
Federal – Species of Special Concern **State (CDFG)** – Species of Special Concern

Description:
The Red Diamond Rattlesnake is a large (75-163 cm) snake of the Viperidae family. The dorsal color of this heavy-bodied snake is tan, brick red, pink, or reddish with diamond shaped blotches. Individuals have a brown iris, white or pale yellow colored bellies, and tails that are pinkish on their undersurfaces. Black and white bands precede the rattles on adults.

Habitat and Distribution:
Red Diamond Rattlesnakes range from San Bernardino County, California southward to Loreto, Baja California, Mexico. Inhabits coastal and desert slopes of the Peninsular Ranges. Occurs in desert slope scrub and coastal sage scrub habitats. Areas that are composed of heavy brush appear to be the preferred vegetation type. Mammal burrows are frequented by Red Diamond Rattlesnakes, and may be a habitat requirement. Large rocks and boulders may also be used as refuge sites, and probably provide individuals with substantial food resources.

Life History:
The Red Diamond Rattlesnake is a secretive species that may have the ability to remain active year-round. Mating occurs between **March and April**. Eggs are fully developed in approximately 4 months. The young are born live in groups of 3-20 between July and September. Locations for safe birthing sites may include subterranean burrows and underneath large rocks. Little is known about the developmental stages of the Red Diamond Rattlesnake. Squirrels and rabbits make up the majority of Red Diamond's diet. This species will also feed on lizards, birds, rodents, fresh carrion, and other species of snakes.

Coast Patch-Nosed Snake
(*Salvadora hexalepis virgultea*)

Status: **State (CDFG) –** Species of Special Concern

Description:
The Coast Patch-Nosed Snake is a medium sized (55-115 cm TL) snake of the family Colubridae. A yellow or beige stripe is present mid-dorsally, and is darkly bordered. The coloration of the sides of the body is usually dark brown. The ventral side is white or cream colored, and sometimes has a pink or orangish tint on the underside of the tail and on the belly. The iris is black.

Distribution and Habitat:
The Coast Patch-Nosed Snake has a range extending from San Luis Obispo County southward to Baja California, Mexico. It occurs in lowland habitats at elevations up to 2120 m. Populations are found in areas of bushy or shrubby vegetation. Coastal chaparral, washes, desert scrub, and rocky terrain are all suitable habitat types for this species. The presence of sandy soils and mammal burrows may be additional habitat requirements for the Coast Patch-Nosed Snake.

Life History:
The Coast Patch-Nosed Snake engages in diurnal activities, and is rarely observed. Individuals have been observed emerging from overwintering sites in March. The breeding season probably occurs form April to June. Clutch sizes average between 5-6 eggs. This active snake consumes a variety of different foods, and appears to be an opportunistic feeder. Individuals are swift moving and will prey on small mammals, lizards, small snakes, and reptile eggs.

Southern Rubber Boa
(Charina bottae)

Status: **State (CDFG)** - Threatened

Description:
The Southern Rubber Boa (family Boidae) is stout bodied snake ranging in size from 11.8-17.3 inches. (30-44 cm) Dorsal coloration varies from yellowish-brown to olive. The ventral side is a light yellow color. Individuals have smooth, shiny scales, and may appear rubbery looking. The tail is short and is sometimes mistaken for the head. The eyes are relatively small with vertical pupils.

Distribution, Habitat and Life History: Currently, little is known about the distribution and habitat requirements for this species. On-going studies on reptile distribution should provide some information, but it is clear that species-level monitoring and research involving the southern rubber boa is needed.